



State of Nevada – Department Of Personnel

CLASS SPECIFICATION

<u>TITLE</u>	<u>GRADE</u>	<u>EEO-4</u>	<u>CODE</u>
DATA BASE MANAGEMENT SPECIALIST IV	41	A	7.921
DATA BASE MANAGEMENT SPECIALIST III	39	B	7.925
DATA BASE MANAGEMENT SPECIALIST II	37	B	7.926
DATA BASE MANAGEMENT SPECIALIST I	34	B	7.929

SERIES CONCEPT

Positions allocated to the Data Base Management Specialist series are responsible for managing the data base system, maintaining the data dictionary(s) repository(s) and providing technical expertise in application development within the data base environment.

Incumbents manage a multi-user data base environment to provide sharing and control of information organization-wide by: resolving problems of the data base management system and associated software to insure availability of all data; monitoring multi-user data base utility executions and backup processing; implementing and maintaining data base security to protect data and applications.

Incumbents maintain the data dictionary(s) including updating and monitoring the dictionary(s) to reflect new or changed application requirements, allocating the dictionary(s) for application developers, analyzing and developing guidelines and standards for the dictionary(s) to support application data sharing, researching new data elements to prevent duplication in the dictionary(s), and developing programs to generate customized reports.

Define, allocate and load physical data bases; develop procedures and standards for data base administration; define backup and recovery procedures to support data base and data dictionary integrity; responding to technical inquiries concerning data base and related technology.

Develop and maintain security procedures and functions/uses of data base software; evaluate new data base software and determine applicability and benefits to the environment.

Monitor data base management system operations to anticipate and prevent potential problems; control and execute system utilities to create and modify data base structures, back up and restore the data base, regenerate updates, and produce system reports.

Monitor data base management system performance and evaluate performance problems; develop and maintain standards and procedures to ensure appropriate use of the database by application development staff, consultants, etc.

Oversee software support by applying fixes to the data base management system and associated software; analyze system failures and execute procedures to restore system and data base operations; isolating problems in the system and associated software and coordinate resolution with systems software personnel and vendor(s); install multi-user data base management software and end user tools.

Plan, coordinate, and oversee the installation of new software releases to update the capabilities of the data base management system and associated software, test and benchmark new software releases; tune data base

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SERIES CONCEPT (cont'd)

management software to attain optimal performance; evaluate, select, and coordinate the application of fixes to the data base management software; and develop procedures to interface data base with other software systems.

Provide training on data base concepts, software functions, data base design, and analysis/programming techniques in the data base environment and defines data storage organization for application developers.

Incumbents project resource utilization of data base and the data base management system for capacity planning; review and testing data base tools and techniques and advise users of current/future capabilities; coordinate any interface with remote data bases to facilitate data sharing and ensure compatibility of the data bases; and coordinate the development of distributed data base to insure data consistency and compatibility.

Levels within this class series are distinguished by the size, complexity level of the data base managed, the knowledge required to perform all the functions, and the supervisory responsibility of the position.

Perform related duties as assigned.

CLASS CONCEPTS

Data Base Management Specialist IV: The Data Base Management Specialist IV class is responsible for planning, directing, designing and coordinating a statewide data base for several State agencies; establishes statewide data base policies and procedures, determines information needs including planning, analyzing, modeling, documenting and designing the statewide data base system; enforces established standards and procedures; ensures that data bases are available to authorized persons.

Exercises supervision over lower level data base professionals.

This class is distinguished from the Data Base Management Specialist III by the scope of responsibility, size of the data base as well as supervisory responsibility. While the Data Base Management Specialist IV is responsible for the overall data base for several state agencies statewide, the Data Base Management Specialist III is responsible for the data base of a large state agency.

Data Base Management Specialist III: Positions allocated to this class perform the full range of duties described in the series concept and exercise supervision over lower level Data Base Management Specialists.

Data Base Management Specialist III's are typically located in large State agencies and are responsible for managing a multi-user data base.

Data Base Management Specialist II: This is the journey level class responsible for monitoring and maintaining the data dictionary(s)/repository(s), installation of software utilities, tools, and programming languages, and the resolution of problems in the data base caused by application design or processing within a multi-user data base management system environment.

Data Base Management Specialist I: Under immediate supervision, receives training in the performance of the duties described in the series concept.

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MINIMUM QUALIFICATIONS

SPECIAL NOTES AND REQUIREMENTS:

- * In order to meet the needs of each agency, the position may require specialized backgrounds or skills in order for the incumbent to perform all of the tasks required of the position. Any specialized background required will be identified prior to the recruitment process within the parameters of the class specification.
- * Education above the high school level may be substituted for experience on the basis of 30 semester credits equals six months of the required experience.

DATA BASE MANAGEMENT SPECIALIST IV

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university with major work in computer science, management information systems, systems analysis and design or closely related field and five years of experience in data base administration in a multi-user environment including two years of supervisory responsibility or project management responsibility **OR** two years of experience as a Data Base Management Specialist III in Nevada State service; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Detailed knowledge of: the principles and practices of data processing; data base management system utilization. **Working knowledge of:** data dictionary/repository concepts, principles, and utilities; data base and data dictionary/repository security; dictionary migration concepts; current data base technology; data communication software; data modeling techniques; software installation and maintenance; data base management system performance tuning techniques; backup and recovery techniques; data definition language(s); technical writing and report preparation; data administration concepts; supervisory principles and practices. **General knowledge of:** data base management system software internals. **Ability to:** develop short and long range plans; communicate effectively orally and in writing with users, technical data processing personnel, and vendors; understand and interpret technical documentation relating to software, hardware, and data processing theory/technology; evaluate new software; conduct training in data base theory, concepts and software utilization; coordinate systems design, applications and software programming, and computer operations activities relative to the data base environment; *and all knowledge, skills and abilities required at the lower levels.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Detailed knowledge of: departmental rules, regulations, policies and procedures; data base and data dictionary/repository security; dictionary migration concepts; data base management system software internals; data base management system performance tuning techniques; backup and recovery techniques; data definition language(s). **Working knowledge of:** Nevada Revised Statutes pertaining to data base administration; budgeting techniques. **General knowledge of:** personnel management, including supervision, interviewing, performance evaluation, and discipline; supervisory theories, principles and practices. **Ability to:** evaluate changes in the production environment and anticipate resources needed to meet those changes; analyze and coordinate the resolution of data base, associated software, and data dictionary/repository problems; determine software applicability to the data base environment.

DATA BASE SPECIALIST III

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university with major work in computer science, management information systems, systems analysis and design or closely related field and three years of professional work experience in data base administration in a

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MINIMUM QUALIFICATIONS (cont'd)

DATA BASE SPECIALIST III (cont'd)

EDUCATION AND EXPERIENCE (cont'd)

multi-user environment; **OR** two years of experience as a Data Base Management Specialist II in Nevada State service; **OR** an equivalent combination of education and experience. *(See Special Notes and Requirements)*

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: the principles and practices of data processing; data base management system utilization; data dictionary/repository concepts, principles and utilities; data base and data dictionary/repository security; current data base technology; data modeling techniques; backup and recovery techniques; data definition languages(s); technical writing and report preparation; data administration concepts. **General knowledge of:** dictionary migration concepts; data communication software; software installation and maintenance; data base management system software internals; data base management system performance tuning techniques. **Ability to:** understand and interpret technical documentation relating to software, hardware, and data processing theory/technology; coordinate systems design, applications and software programming, and computer operations activities relative to the data base environment; communicate effectively orally and in writing with users, technical data processing personnel and vendors; maintain cooperative working relationships with co-workers and users; *and all knowledge, skills and abilities required at the lower levels.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Working knowledge of: software installation and maintenance; data base management system performance tuning techniques; supervisory principles and practices. **Detailed knowledge of:** the principles and practices of data processing; data base management system utilization; data dictionary/repository concepts, principles and utilities; dictionary migration concepts; data communication software; data base management system software internals; backup and recovery techniques.

DATA BASE MANAGEMENT SPECIALIST II

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in computer science, management information systems, systems analysis and design or closely related field and two years of work experience in data base administration in a multi-user environment; **OR** one year of experience as a Data Base Management Specialist I in Nevada State service; **OR** an equivalent combination of education and experience. *(See Special Notes & Requirements)*

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: data processing methods and concepts. **General knowledge of:** data dictionary/repository concepts; data base management system utilization; current data base technology; programming languages and techniques; application development; systems analysis and design; data base systems and applications. **Ability to:** understand and interpret technical documentation on software, hardware, and data processing theory/technology; communicate effectively orally and in writing; maintain effective working relationships with others; *and all knowledge, skills and abilities required at the lower level.*

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MINIMUM QUALIFICATIONS (cont'd)

DATA BASE SPECIALIST II (cont'd)

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Working knowledge of: data dictionary/repository concepts; data base management system utilization; current data base technology; data definition languages(s); technical writing and report preparation; data administration concepts. **General knowledge of:** backup and recovery techniques.

DATA BASE MANAGEMENT SPECIALIST I

EDUCATION AND EXPERIENCE: Graduation from an accredited college or university in computer science, management information systems analysis and design or closely related field and one year of experience in data base administration in a multi-user environment; **OR** one year of experience as a Computer Information Systems Trainee in Nevada State service. (*See Special Notes & Requirements*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

General knowledge of: at least one or more general purpose computer programming languages in software oriented positions. **Ability to:** logically analyze problems of limited complexity; maintain effective working relationships with others; communicate effectively orally and in writing.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Working knowledge of: data processing methods and concepts. **General knowledge of:** data dictionary/repository concepts; data base management system utilization; current data base technology; programming languages and techniques; application development; systems analysis and design; data base systems and applications. **Ability to:** understand and interpret technical documentation on software, hardware, and data processing theory/technology; communicate effectively orally and in writing; maintain effective working relationships with others.

This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

	<u>7.921</u>	<u>7.925</u>	<u>7.926</u>	<u>7.929</u>
ESTABLISHED:	7/1/95P 9/16/94PC	7/1/95P 9/16/94PC	7/1/95P 9/16/94PC	7/1/95P 9/16/94PC
REVISED:	7/1/97LG	7/1/97LG	7/1/97LG	7/1/97LG